

REMARKS

The final Office Action dated July 21, 2009 and the Advisory Action dated October 14, 2009 have been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-11, 13-16, and 18-30 are now pending in this application. Claims 1-11, 13-16, and 18-30 stand rejected.

The rejection of Claims 1-11, 13-16, and 18-30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,732,191 to Baker, et al. (hereinafter referred to as “Baker”) in view of U.S. Patent 6,853,867 to Klindt, et al. (hereinafter referred to as “Klindt”) is respectfully traversed.

Independent Claim 1 has been amended to recite “a web server located within said web server and database module configured to: receive the request for the file from said network module; and parse the file for tag functions used to request specific ACM data; and an ACM central processing unit (CPU) configured to send the requested ACM data to said web server and database module, wherein said web server is further configured to embed the ACM data in the file to facilitate transferring the ACM data to said network module in response to the request....” Independent Claims 11, 20, and 25 have been amended similarly. Applicants respectfully submit that such a recitation is supported in the specification at, for example, paragraph [0031], which provides that “web server 34 processes 58 the HTTP requests, reads 60 at least one web page file (not shown), parses 62 the web page file for tag functions, uses form data from the HTTP request to transfer 64 ACM data to ACM CPU 18 to control operation of eWeb ACM 12, embeds 66 the status of the tag function within the at least one web page file, and sends 68 the at least one web page file through network 28.” In addition, paragraph [0031] provides that “web server 34 processes 58 the HTTP requests, reads 60 at least one web page file from database 32, requests 70 ACM data from ACM CPU 18 based on parsing the web page file for tag functions and applying form data from the HTTP request, and receives 72 ACM data from ACM CPU 18.”

Applicants respectfully submit that neither Baker nor Klindt, considered alone or in combination, describes or suggests such a recitation. Rather, Baker describes an application program used by a website to provide data from a process control system to a remote computer having a browser, wherein the browser sends commands to the web site, which uses the application program to display any information available from the process control system. For example, at column 5, lines 9-15, Baker provides that signals communicated between an I/O device and a web server include addressing, control, data, and power signals. More specifically, Baker provides that the “client interface allows an Input/Output module to send commands to a remote node over the Internet and the server interface allows for remote processing commands that originated from a remote node.” However, Baker does not describe or suggest sending data or processing commands using tag functions that are embedded within a file. Moreover, Klindt describes a controller that stores operating instructions related to input, output, and manipulation of data, and a server that includes a flash memory that stores variable/symbol information that is downloaded to the controller for execution. Specifically, at column 6, lines 1-14, Klindt describes that the flash memory stores JAVA applets and data structures that define web pages for display at a remote computer. However, as is commonly known in the art, JAVA applets are executed on the client side rather than at the server side or controller side. Accordingly, Klindt does not describe or suggest sending data or processing commands using tag functions that are embedded within a file.

Baker describes a system for monitoring a process control system (6) using a web site (4) that is accessed by a user (2) via a computer (8) and a network (14). The web site (4) includes a network interface (16) that connects to the network (14), a server (20), and a firmware or application program (22). The server (20) is a hypertext transfer protocol (HTTP) interpreter and uses Transmission Control Protocol/Internet Protocol (TCP/IP) to interact with the network interface (16) and the application program (22). The application program (22) receives data from a process control system (6) for use in monitoring a control process, such as an input/output process. Accordingly, the process control system (6) includes an input/output (I/O) device (40). In addition, the server (20) includes a web server (30). Communications between the I/O device (40) and the web server (30) take place using

a back plane (34), and include addressing signals, control signals, data signals, and power signals. The computer (8) communicates with the I/O device (40) via the web site (4), and the I/O device (40) sends commands to the computer (8) and/or receives commands from the computer (8). Notably, Baker does not describe or suggest a web server that receives a request for the file from a network module, parses the file for tag functions used to request specific ACM data, receives the requested ACM data from an ACM CPU, and embeds the ACM data in the file to facilitate transferring the ACM data to a network module.

Klindt describes a server (12) coupled to a programmable logic controller (PLC) (14) and a host computer (16). The server (12) provides web access to controller data, such as variables, system diagnostics, configuration information, and/or I/O status. The PLC (14) includes a storage device (18) that stores program instructions and data, and a CPU module (19) that executes the program instructions. The server (12) enables network access to the PLC (14) via an HTTP server (36) and a file transfer protocol (FTP) server (38), which each allows a user of the host computer (16) to display controller data via web pages. The server (12) also includes a flash memory (28) that stores variable/symbol information that is executed by the PLC (14), and JAVA applets and data structures that define the web pages. The JAVA applets are downloaded and executed by the host computer (16) to display the controller data.

Claim 1 recites a web-enabled automation control module (ACM) system that includes “a computer configured to send a request for a file; a network module located outside of said computer configured to receive the request for the file from said computer via a network; a database located within a web server and database module configured to store the file; a web server located within said web server and database module configured to: receive the request for the file from said network module; and parse the file for tag functions used to request specific ACM data; and an ACM central processing unit (CPU) configured to send the requested ACM data to said web server and database module, wherein said web server is further configured to embed the ACM data in the file to facilitate transferring the ACM data to said network module in response to the request, said ACM CPU coupled directly to said web server and database module.”

Neither Baker nor Klindt, considered alone or in combination, describes or suggests an ACM system, as recited in Claim 1. More specifically, neither Baker nor Klindt, considered alone or in combination, describes or suggests a web server that receives a request for a file from a network module, parses the file for tag functions used to request specific ACM data, receives the requested ACM data from an ACM CPU, embeds the ACM data in the file, and transfers the ACM data to the network module in response to the request. Rather, Baker merely describes using an application program within a web site to process data commands to obtain data for display at a remote computer having a browser, and Klindt describes using JAVA applets executed by a remote computer to generate and display HTML pages that include controller data.

Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Baker in view of Klindt.

Claims 2-10 and 19 depend from independent Claim 1. When the recitations of Claims 2-10 and 19 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2-10 and 19 likewise are patentable over Baker in view of Klindt.

Claim 11 recites a method for managing and controlling an automation control module (ACM) system, wherein the method includes “sending a request for a file from a computer through a network to at least one network module located outside of the computer; sending the request from the at least one network module to a web server located within a web server and database module; storing the file in a database of the web server and database module; requesting, by the web server, ACM data from an ACM central processing unit (CPU) based on tag functions embedded in the file; sending the requested ACM data from the ACM CPU to the web server and database module, wherein the ACM CPU is coupled directly to the web server and database module; retrieving the file from the database via the web server; embedding the ACM data in the file to facilitate transferring the ACM data to the at least one network module in response to the request; and transmitting the file from the web server to the computer via the at least one network module and the network.”

Neither Baker nor Klindt, considered alone or in combination, describes or suggests a method for managing and controlling an ACM system, as recited in Claim 11. More specifically, neither Baker nor Klindt, considered alone or in combination, describes or suggests requesting, by a web server, ACM data from an ACM central processing unit (CPU) based on tag functions embedded in a requested file, sending the requested ACM data from the ACM CPU to the web server, embedding the ACM data in the file, and transmitting the file from the web server to a computer via a network module and a network. Rather, Baker merely describes using an application program within a web site to process data commands to obtain data for display at a remote computer having a browser, and Klindt describes using JAVA applets executed by a remote computer to generate and display HTML pages that include controller data.

Accordingly, for at least the reasons set forth above, Claim 11 is submitted to be patentable over Baker in view of Klindt.

Claims 13-16 and 18 depend from independent Claim 11. When the recitations of Claims 13-16 and 18 are considered in combination with the recitations of Claim 11, Applicants submit that dependent Claims 13-16 and 18 likewise are patentable over Baker in view of Klindt.

Claim 20 recites a method for managing and controlling an automation control module (ACM) system, wherein the ACM system includes at least one network module located outside of a computer, and wherein the at least one network module is electrically connected to a network and a web server and database module is electrically connected to the at least one network module and located outside the at least one network module. The method includes “receiving by the at least one network module located outside of the computer a request for a file from the computer through the network; storing the file in a database of the web server and database module; parsing the file for tag functions used to determine desired ACM data to be returned to the computer; and transmitting the desired ACM data to be embedded in the file from an ACM central processing unit (CPU) to facilitate transferring the ACM data to the computer via the at least one network module in

response to the request, wherein the ACM CPU is coupled directly to the web server and database module.”

Neither Baker nor Klindt, considered alone or in combination, describes or suggests a method for managing and controlling an ACM system, as recited in Claim 20. More specifically, neither Baker nor Klindt, considered alone or in combination, describes or suggests: (1) receiving, by a network module, a request for a file from the computer through a network; (2) storing the file in a database; (3) parsing the file for tag functions used to determine desired ACM data to be returned to the computer; and (4) transmitting the desired ACM data to be embedded in the file from an ACM central processing unit (CPU) to the web server and database module to facilitate transferring the ACM data to the computer via the at least one network module in response to the request. Rather, Baker merely describes using an application program within a web site to process data commands to obtain data for display at a remote computer having a browser, and Klindt describes using JAVA applets executed by a remote computer to generate and display HTML pages that include controller data.

Accordingly, for at least the reasons set forth above, Claim 20 is submitted to be patentable over Baker in view of Klindt.

Claims 21-24 depend from independent Claim 20. When the recitations of Claims 21-24 are considered in combination with the recitations of Claim 20, Applicants submit that dependent Claims 21-24 likewise are patentable over Baker in view of Klindt.

Claim 25 recites a method for managing and controlling network traffic by utilizing at least one network module and a web server and database module located outside the at least one network module. The method includes “receiving, by a first network module located outside of a computer, a message from the computer via a network; storing a file requested in the message in a database of the web server and database module; parsing the file to determine a set of requested ACM data based on tag functions within the file; embedding the requested ACM data in the message in response to execution of the tag functions; and transferring the message from the first network module via an automation control module (ACM) backplane to the web server and database module to facilitate transferring the

message to the first network module in response to a request, wherein the message is transferred from an ACM central processing unit (CPU) that is coupled directly to the web server and database module.”

Neither Baker nor Klindt, considered alone or in combination, describes or suggests a method for managing and controlling network traffic, as recited in Claim 25. More specifically, neither Baker nor Klindt, considered alone or in combination, describes or suggests storing a file requested in a message in a database of a web server and database module, parsing the file to determine a set of requested ACM data based on tag functions within the file, and embedding the requested ACM data in the message in response to execution of the tag functions. Rather, Baker merely describes using an application program within a web site to process data commands to obtain data for display at a remote computer having a browser, and Klindt describes using JAVA applets executed by a remote computer to generate and display HTML pages that include controller data.

Accordingly, for at least the reasons set forth above, Claim 25 is submitted to be patentable over Baker in view of Klindt.

Claims 26-30 depend from independent Claim 25. When the recitations of Claims 26-30 are considered in combination with the recitations of Claim 25, Applicants submit that dependent Claims 26-30 likewise are patentable over Baker in view of Klindt.

For the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-11, 13-16, and 18-30 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action are respectfully solicited.

Respectfully submitted,

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